

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 July 2003 (31.07.2003)

PCT

(10) International Publication Number
WO 03/062470 A1

(51) International Patent Classification⁷: C12Q 1/68

(21) International Application Number: PCT/KR03/00131

(22) International Filing Date: 21 January 2003 (21.01.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2002-0004297 24 January 2002 (24.01.2002) KR
10-2002-0011648 5 March 2002 (05.03.2002) KR

(71) Applicant (for all designated States except US):
BIOMEDLAB CORPORATION [KR/KR]; Dong-
sung Bldg., 1-49, Dongsung-dong, Jongro-ku, Seoul
110-510 (KR).

(71) Applicant and
(72) Inventor: **KIM, Bum-Joon** [KR/KR]; A-105 Professor's
apt., 1 Ara 1-dong, Jeju-city, Jeju-do 690-121 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KOOK, Yoon-Ho**

[KR/KR]; 2-1406 Yeoksamhansin Apt., Dogok 1-dong,
Gangnam-gu, Seoul 135-271 (KR). **KIM, Jeong-Mi**
[KR/KR]; 7-208 Bulkwangmiseong apt., Bulkwang
1dong, Eunpyeong-gu, Seoul 122-751 (KR).

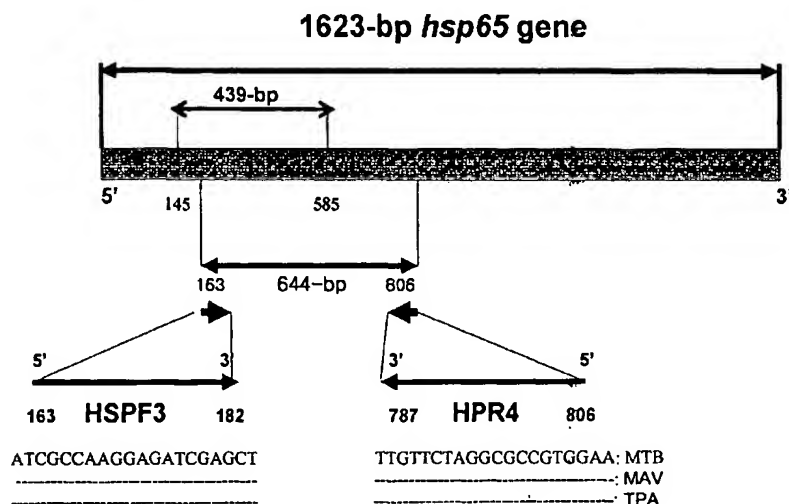
(74) Agent: **YOU ME PATENT & LAW FIRM**; Tehran
Bldg., 825-33, Yoksam-dong, Kangnam-ku, Seoul 135-080
(KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI,

[Continued on next page]

(54) Title: PRIMERS FOR AMPLIFYING HSP 65 GENE OF MYCOBACTERIAL SPECIES, HSP 65 GENE FRAGMENTS AND METHOD OF IDENTIFYING MYCOBACTERIAL SPECIES WITH THE SAME



(57) Abstract: The present invention relates to a pair of primers specific to mycobacterial species, a polynucleotide of an hsp 65 gene fragment, and a method for the identification of mycobacterial species by using the same. More specifically, the 604-bp hsp 65 gene fragment can be applied to identification methods of mycobacteria such as the comparative sequence analysis method, the probe hybridization method, and PCR-RFLP, which can resolve the problems of a conventional identification method based on biochemical characteristics, where the genus mycobacterium covers various species and has a low growth rate, and of the problems of 16s rDNA. Thus, according to the identification method of the present invention, the mycobacterial species can be identified simply, economically, and accurately.

WO 03/062470 A1